



US Army Corps
of Engineers®

SAN FRANCISCO DISTRICT

Regulatory Branch
1455 Market Street
San Francisco, CA 94103-1398

PUBLIC NOTICE

NUMBERS: 24305S, 23573S, 24441N, 24997N, 25041N, 24996N, and 25563N

DATE: April 3, 2007

RESPONSE REQUIRED BY: May 9, 2007

PROJECT MANAGER: Philip A. Shannin PHONE: 415-503-6781

Email: Philip.A.Shannin@usace.army.mil

1. **INTRODUCTION:** Hanson Marine Operations, 3000 Busch Road, Pleasanton, California 94566 and Morris Tug and Barge, P.O. Box 22, Dillon Beach, CA 94929 through their agent Earl F. Bouse (925) 785-0066 have applied for a Department of the Army permit to extend their existing marine sand mining permits to July 1, 2011 to obtain construction grade sand from Central San Francisco Bay, Suisun Bay and Middle Ground Shoals and to transport the sand to upland sand yards around the San Francisco Bay-Delta Estuary. This application is being processed pursuant to the provisions of Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403).

2. PROPOSED PROJECT:

Project Site: The project is located in San Francisco Bay-Delta Estuary and more specifically in Central San Francisco Bay, Suisun Bay and the Middle Ground Shoals as shown in the attached drawings (Figures 1- 5). These areas are leased from the California State Lands Commission and from Luis Grossi.

Project Description: This Project Description was derived from the 2004 investigation entitled "*Assessment & Evaluation of the Effects of Sand Mining on Aquatic Habitat and Fishery Population of Central San Francisco Bay and the Sacramento-San Joaquin Estuary (2004)*". This study is referenced herein as **Sand Study 2004**. The **Sand Study** can be accessed at the following website: www.HansonEnvironmentalInc.com.

Select **Current Reports** and then select **Sand Report (October 2004)**. Hanson Environmental, Inc. is not associated with nor owned by Hanson Marine Operations Inc. or Hanson Aggregates. Dr. Charles H. Hanson has independent control of this marine consulting firm.

Mining of sand for use as a construction material has occurred within Central San Francisco Bay and the western delta (Bay-Delta estuary) for more than seven decades. Channel and harbor dredging to remove sand and other sediment deposits began in San Francisco Bay in the 1800s, and construction sand mining within the estuary began in the 1930s. Currently, three companies are permitted to mine sand from the Bay-Delta estuary; they include Hanson, Cemex, and Morris Tug and Barge.

The three marine aggregate operators currently conduct sand mining within the estuary, and they utilize similar equipment for sand mining, including a trailing arm hydraulic suction dredge and hopper barge. The method of mining varies among the three operators with Hanson primarily using the moving pothole method and occasionally using the trolling method between some potholes. Cemex uses the stationary pothole method, and Jerico primarily uses the stationary pothole method along with occasionally employing the trolling and moving pothole methods.

Mining occurs within Central San Francisco Bay, the Carquinez Strait, Middle Ground Shoal and within the navigation channels within Suisun Bay.

Sand mining does not occur uniformly within the region, but rather is clustered within specific areas, typically characterized by high river or tidal velocities and sand deposits having a low percentage of fine material (silts, clay, and mud). Mining events typically last approximately 3.0 to 5.5 hours, during which time approximately 1,500 to 2,500 cubic yards of sand is harvested. During mining, water is entrained into the suction head creating a water and sand slurry to mobilize sand and pump it into the hopper barge. Hydraulic pump capacity varies among individual sand mining barges from approximately 5,000 to 15,000 gpm.

Sand mining within Central Bay occurs typically at water depths ranging from 30 to 90 feet. Mining within the navigation channels of Carquinez Strait, Middle Ground Shoal, and Suisun Bay typically occurs in waters 15 to 45 feet deep.

The mechanical fundamentals of sand mining are similar for stationary potholing, trolling and moving potholing operations. All methods involve use of a tugboat to position and maneuver the hopper barge.

Hopper barges may be partially loaded with water prior to mining; some hold their sand cargo below water line requiring them to use nearly their full draft during the entire dredging event which limits the depth at which they can operate. Hopper barges mining sand within the Bay-Delta estuary use suction pumps to harvest the sand from the bottom of the estuary.

The hydraulic suction system (pump) used in sand mining consists of a drag arm equipped with drag head, generally mounted on the side of the barge. The drag head is generally fitted with a "grizzly" to screen out oversized material. The pump delivers the sand to a chute that has hydraulically-controlled screened openings (gates) at intervals along its bottom, and the sand-water slurry flows through these gates into the barge. Some of the slurry, including aggregate larger than the openings in the screens, is discharged overboard. As the sand displaces water in the barge, the water, fine sediments, aeration bubbles, plankton, and other fine material is discharged forming an overflow plume. Cargo hoppers are also fitted with fine

mesh screens along the bottom centerline of the barge where water that has filtered through the sand is also collected and pumped overboard. Based on the equipment and methods used for sand mining within the estuary, commercial sand characteristically ranges in size from approximately 1 mm to 12 mm (1/2 inch), with larger and smaller particles discharged overboard.

Once mining is completed, the barge is taken to a suitable site for offloading. Offloading may be accomplished by creating a sand-water slurry and pumping the slurry into a dewatering pond on shore or by use of a conveyor belt/conveyor boom system to offload "dry" sand to a storage site. Slurry pumped into dewatering ponds is allowed to separate (settle) and water is drained over a weir system and subsequently flows into the estuary. Most sand must be washed using fresh water before delivery to the customer to produce a sand product with chloride content appropriate for concrete, generally 0.006% chloride or less by weight of cement. Offloading and sand distribution sites are relatively small (typically 2 to 3 acres) and have limited capability to stockpile or store sand for an extended period.

Purpose and Need: The basic and overall purpose of this project is to mine construction sand in the San Francisco Bay Delta-Estuary for commercial resale and to transport the material to upland sand yards.

Impact: The project will result in the continued removal of up to 1, 500,000 cubic yards of material per year from Central San Francisco Bay, up to 50,000 cubic yards of material per year from Carquinez Straits, up to 100,000 cubic yards from Suisun Bay and up to 900,000 cubic yards of material from Middle Ground Shoals over the permit period, from Corps jurisdictional waters, within the San Francisco Bay-Delta Estuary. Sand mining within the Bay-Delta estuary in recent years has averaged a harvest of approximately 1.5 to 1.9 million cubic yards per year. The cumulative volume of sand and other substrate material affected by the combination of sand mining and channel

maintenance dredging is approximately 3.5 to 3.9 million cubic yards per year.

This would be a renewal of the previous Corps authorizations for this work. This extension will give sufficient time to allow sand mining to continue uninterrupted, while the State Lands Commission completes an Environmental Impact Report (EIR), in response to a request by Hanson to renew its lease areas. The Corps may modify or revoke these permits, if new impacts are identified, as a result of this EIR.

3. OTHER STATE AND FEDERAL PERMITS:

National Environmental Policy Act of 1969

(NEPA): The Corps will assess the environmental impacts of the proposed action in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. Section 4371 et. seq.), the Council on Environmental Quality's Regulations, 40 C.F.R. Part 1500-1508, and Corps' Regulations, 33 C.F.R. Part 230 and 325, Appendix B. Unless otherwise stated, the Environmental Assessment will describe only the impacts (direct, indirect, and cumulative) resulting from activities within the Corps' jurisdiction. The documents used in the preparation of the Environmental Assessment will be on file with the U.S. Army Corps of Engineers, San Francisco District, Regulatory Branch, 1455 Market Street, San Francisco, California 94105-2197.

Endangered Species Act of 1973 (ESA):

Section 7 of the Endangered Species Act requires formal consultation with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) if a Corps permitted project may adversely affect any Federally listed threatened or endangered species or its designated critical habitat. Species and critical habitat currently identified as potentially impacted by the proposed project include winter-run Chinook salmon (*Onchorhynchus tshawytscha*), steelhead trout (*Onchorhynchus mykiss*), coho salmon (*Onchorhynchus kisutch*), and Green sturgeon (*Acipenser medirostris*).

Magnuson-Stevens Fisheries Conservation and

Management Act: NMFS and several interagency fisheries councils have designated specific water bodies as Essential Fish Habitat (EFH) in accordance with the Magnuson-Stevens Fisheries Conservation and Management Act. Specific EFH concerns associated with this proposal include Pacific groundfish, coastal pelagics, and Pacific coast salmon. Coordination with the NMFS in regard to EFH will be initiated concurrently with the ESA consultation.

Water Quality:

Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must first obtain a State water quality certification before a Corps permit may be issued. The applicants have provided the Corps with evidence that they have submitted a valid request for State water quality certification to the San Francisco Bay Region Regional Water Quality Control Board. No Corps permit will be granted until the applicant obtains the required water quality certification. The Corps may assume a waiver of water quality certification if the State fails or refuses to act on a valid request for certification within 60 days after the receipt of a valid request, unless the District Engineer determines a shorter or longer period is reasonable for the State to act.

Those parties concerned with any water quality issues that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612 by the close of the comment period of this Public Notice.

Coastal Zone Management Act of 1972 (CZMA):

Section 307 of the Coastal Zone Management Act requires the applicant to certify that the proposed project will comply with the State's Coastal Zone Management Program, if applicable. No Corps permit will be issued until the State has concurred with the applicant's certification. Coastal development issues are addressed by the San Francisco Bay Conservation and Development

Commission (BCDC), 50 California Street, Suite 2600, San Francisco, California 94111.

National Historic Preservation Act of 1966 (NHPA): Based on a review of survey data on file with various City, State and Federal agencies, no historic or archeological resources are known to occur in the project vicinity. If unrecorded resources are discovered during the project, operations will be suspended until the Corps completes consultation with the State Historic Preservation Office (SHPO) in accordance with Section 106 of the National Historic Preservation Act.

4. ENVIRONMENTAL ASSESSMENT: The Corps will assess the environmental impacts of the proposed action in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. Section 4371 et. seq.), the Council on Environmental Quality's Regulations (40 C.F.R. Parts 1500-1508), and the Corps' Regulations (33 C.F.R. Part 230 and Part 325, Appendix B). Unless otherwise stated, the Environmental Assessment will describe only the impacts (direct, indirect, and cumulative) resulting from activities within the Corps' jurisdiction. The documents used in the preparation of the Environmental Assessment will be on file with the U.S. Army Corps of Engineers, San Francisco District, Regulatory Branch, 1455 Market Street, San Francisco, California 94103-1398.

5. EVALUATION OF ALTERNATIVES: Evaluation of the proposed activity's impact will include application of the guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b)(1) of the Clean Water Act (33 U.S.C. Section 1344(b)). An evaluation has been made by this office that the proposed project is water dependent.

6. PUBLIC INTEREST EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of

important resources. The benefits that reasonably may be expected to accrue from the proposed activity must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including its cumulative effects. Among those factors are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

7. CONSIDERATION OF COMMENTS: The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest in the proposed activity.

8. SUBMISSION OF COMMENTS: Interested parties may submit, in writing, any comments concerning this activity. Comments should include the applicant's name and the number and the date of this Public Notice, and should be forwarded so as to reach this office within the comment period specified on Page 1. Comments should be sent to the U.S. Army Corps of Engineers, San Francisco District, Regulatory Branch, 1455 Market Street, San Francisco, California 94103-1398. It is the Corps' policy to forward any such comments that include objections to the applicant for resolution or rebuttal.

Any person may also request, in writing, within the comment period of this Public Notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant whose name and address are indicated in the first paragraph of this Public Notice or by contacting Philip A. Shannin of our office at telephone 415-503-6781 or E-mail: Philip.A.Shannin@usace.army.mil. Details on any changes of a minor nature that are made in the final permit action will be provided upon request.

Figure 1: General areas of sand mining within the San Francisco Bay-Delta estuary.



Figure 2: Central Bay SLC sand mining lease locations. RMC leases shown have been assigned to Cemex.

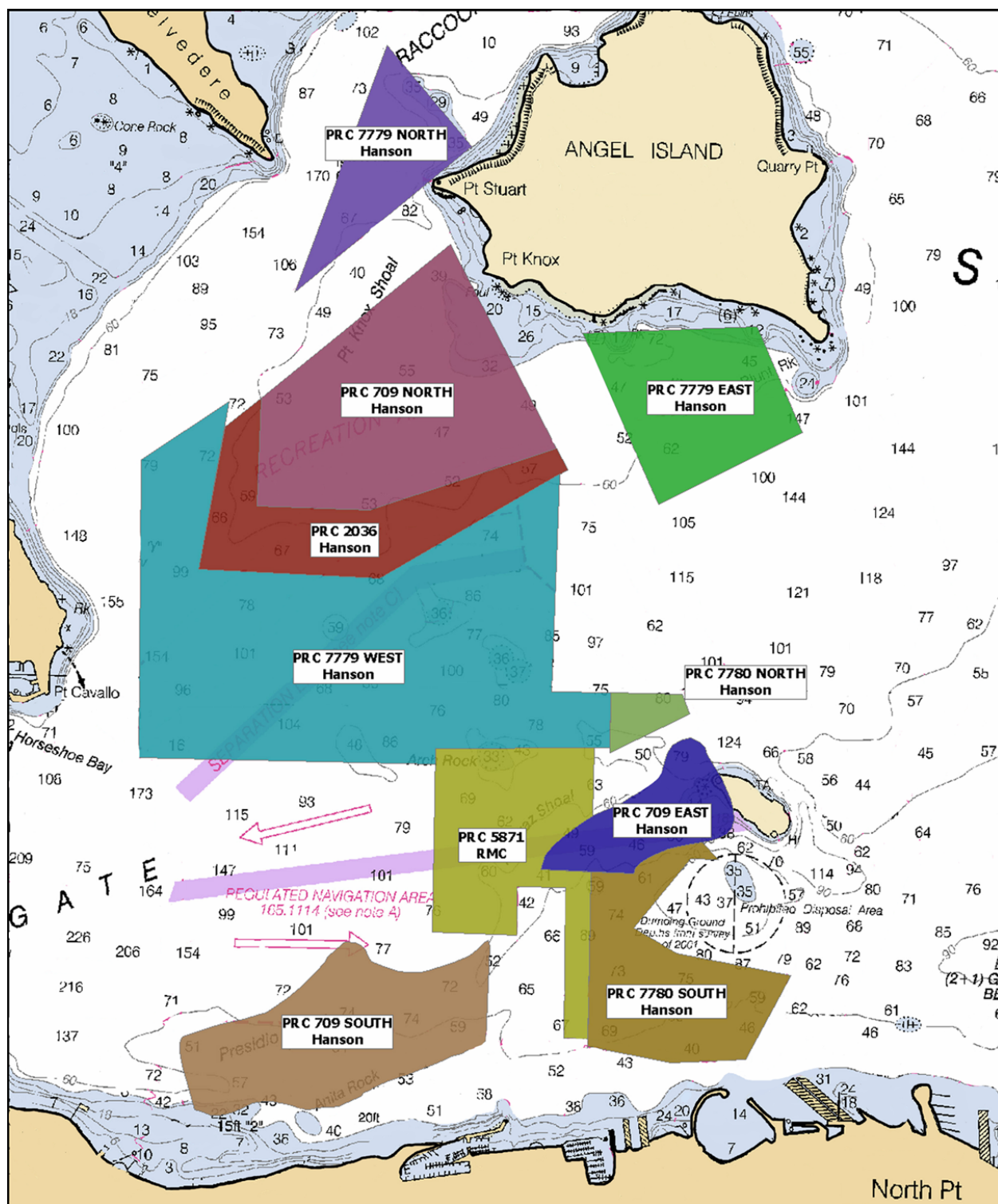


Figure 3: Suisun Bay SLC sand mining lease locations

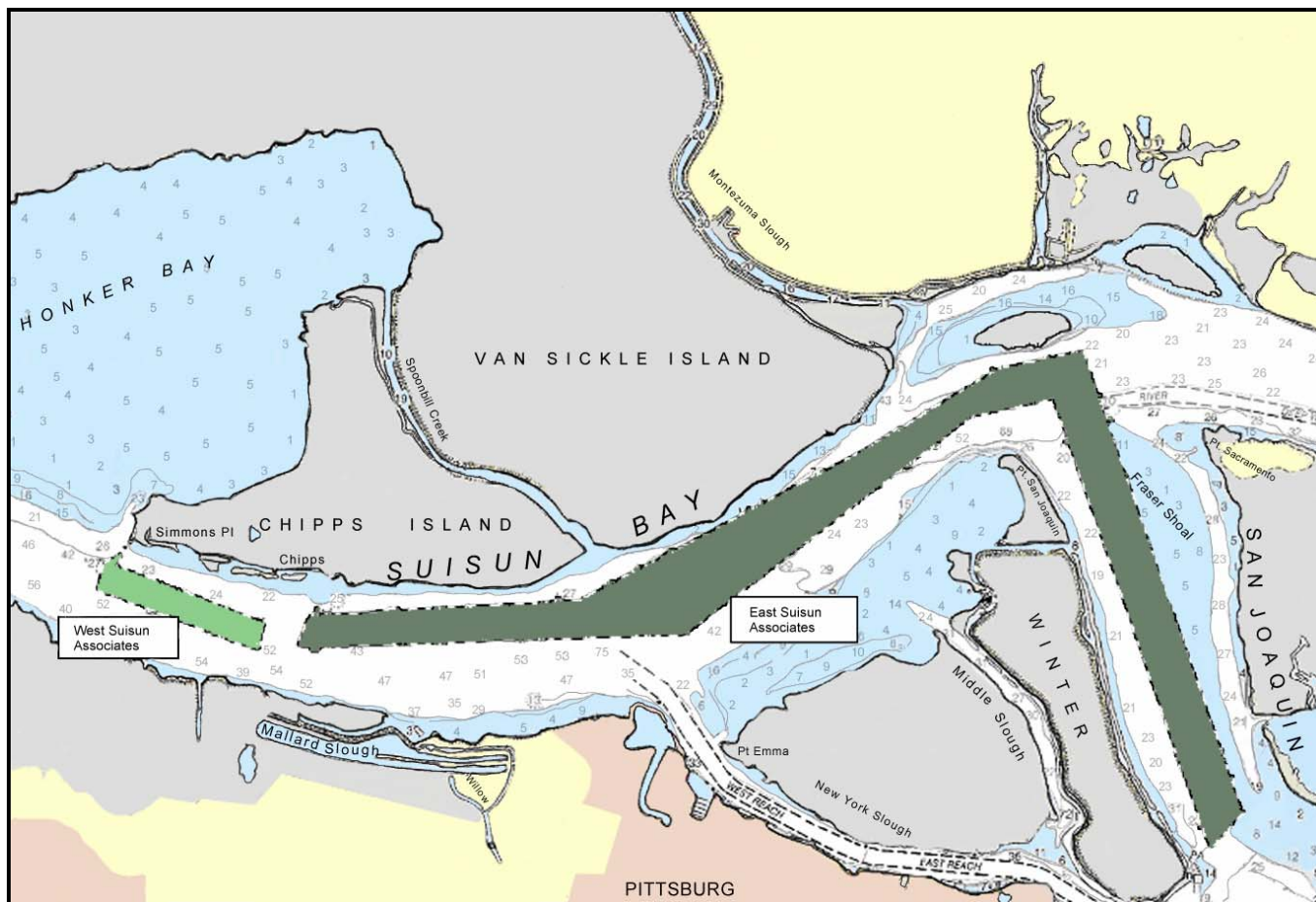


Figure 4: Carquinez Strait SLC sand mining lease locations

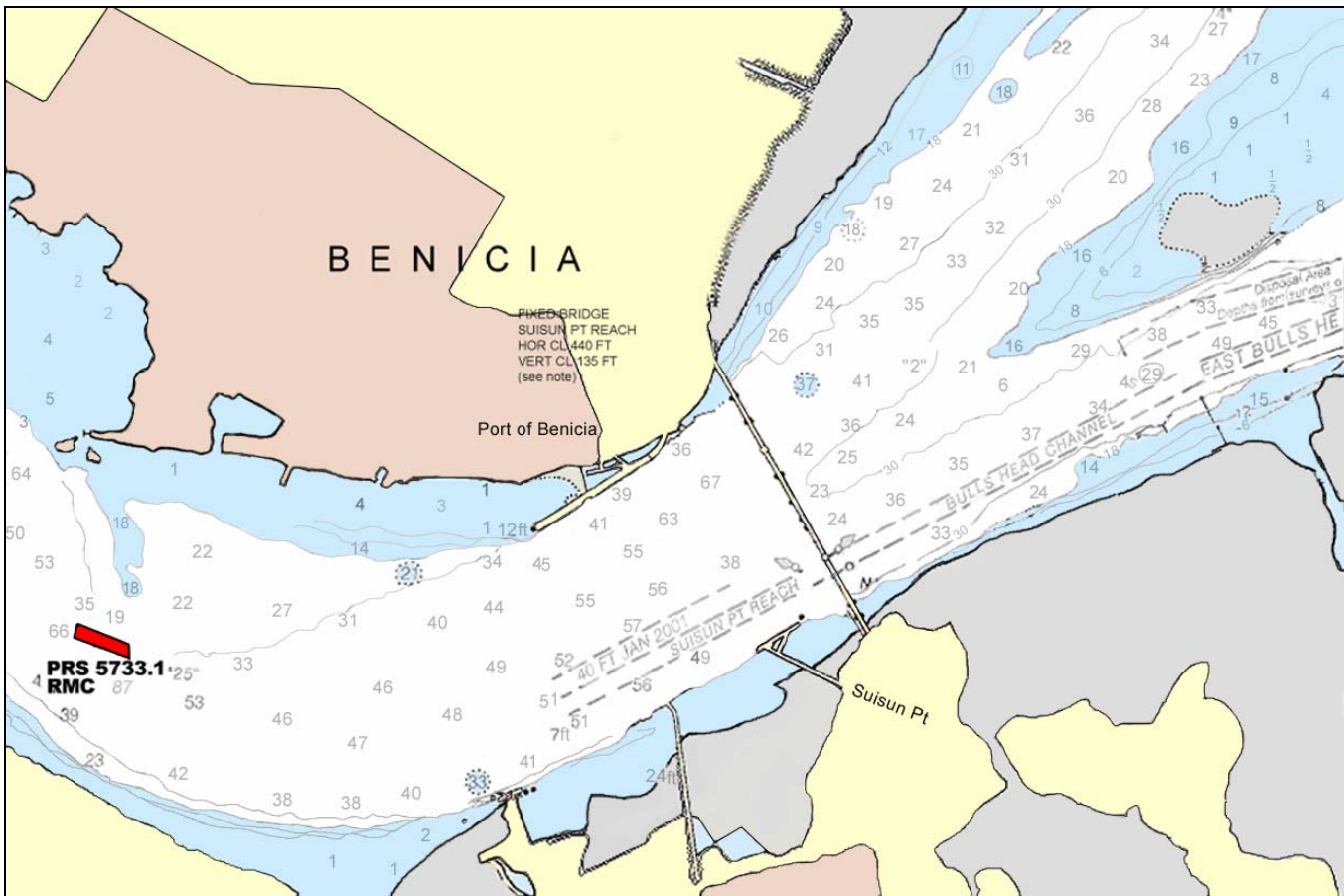


Figure 5: Middle Ground Shoal private lease location. Cemex has assumed the lease for RMC.

